(b) (6)
[redacted]

June 30, 2016

Helen Bottcher, Project Manager (ECL-122)
U.S. EPA Region 10
1200 6th Ave., Suite 900
Seattle, WA 98101

wyckoffcomments@epa.gov

SUBJECT: Eagle Harbor Superfund Site – Public Comment, Proposed Amendment to ROD, April 2016.

Dear Ms. Bottcher,

Thank you for your frank phone conversation earlier this week. I regretted not attending our citizen committee's March meeting or your presentation at City Hall. I appreciate the comment deadline extension and wish I had more time.

Everyone on our citizen committee brings a different viewpoint to the table and a different area of expertise. I do not think anyone on the committee possess the length of oversight as do Charles Schmid and I. And in some ways, not even Charles.

Personal perspectives and viewpoints:

Where I've lived:

I am 75. I grew up in Seattle. I first visited the Island before the bridge in 1948. My wife and I've lived on Bainbridge Is. since 1963.

I have been a life time resident of Puget Sound and Salish Sea except for inland college years in New England (NH, MA, VT) plus NYC and Long Is. Sound, NY) and maritime travels to Australia, NZ, Japan, Korea, Bermuda, B.C. Canada, US West Coast (WA, OR, CA, AK & HA) and inland France. A Scout Jamboree troop crossed US in ’57.

I spent summers my Tom Sawyer years in 1940s and early ‘50’s becoming very familiar with people and marine life on north shore of Port Madison between Miller’s Bay and Jefferson Head on the Port Madison Indian Reservation. We beach combed shores, explored tide flats, fished endlessly from Indianola Dock and played among its pilings and critters at low tide. I spent three years studying biology especially marine biology and zoology in an advanced high school program that included UW’s Oceanography program and bottom trawls in Port Madison.

Education:

I grew up with extensive outdoor, conservation and environmental education from John Muir Elementary. That is the same school attended by Elaine Sommers Hellmuth of Associated Bainbridge Communities (ABC) who “led the charge” to cleanup the Creosote plant. My education was also affected by Scouting, The Seattle Mountaineers and REI – an organization my father co-founded. I carry card no. 16.

My marine science interests were greatly enhanced by Victor McClelland at Franklin HS and lifetime friendships and mentors. I have followed the development of aquaculture here since being an age 3 neighbor, Scouting friend and lifetime friend with Dr. Conrad Mahnken, former director of NMF Research Labs at Manchester and one of few scientists on Governor’s Fisheries Commission. My late-aunt was a marine biologists and by uncle an oceanographer and meteorologist. They both became Master Gardeners and my aunt, county Audubon Society president after retirement. Edward Hagemann was a close friend and one of the top local Naval Architects, having designed several State Ferries and more. For WSF, he oversaw events and rescues following the grounding of the Walla Walla Wing Point in the channel across from Creosote. Danish

designer Axel Damgaard Olsen amplified much of what we learned about the sea through sailing, as did several captains with whom a sailed or served.

I discovered sailing in college PE, founded WWU's sailing club, taught sailing there and directed for two years with staff of eight the foremost sailing school in US for Seattle's Corinthian YC, later directing the first, year-round Puget Sound Sailing School at Shilshole in Seattle. even teaching the Red Cross's sailing instructors. I polished the art of sailing and navigation in racing small sail boats 11 to 19 feet and keelboats to 30 feet and cruising waters of Salish Sea from south of Tacoma Narrows to Stuart Is. and Yuculta Rapids north of Desolation Sound.

I earned a degree in Art Education with minors in Sociology-Anthropology. Between statistical analysis and qualitative worldviews, I chose the latter and was trained in creative processes rather than art as product. I founded the public school art program for Bainbridge Is. School District. I have also served the Suquamish Tribe formally twice – as educator and as marketing consultant for their first Museum founded by some of my former students. I've co-authored two books on Suquamish history and helped the Tribe in many ways.

Mariner

In maritime fields, I have served as a seaman on Washington State ferries for crews whose assignments included sea trials of new ferries of HYAK class as well as pressing historic oldest ferries into service during busy summers; and we served as helmsman and deckhand on a large towboat to AK via Inside Passage, and helped pioneer the State's geoduck harvest industry serving as dive tender, dive boat launch operator, dive training, and worked among shellfish harvesters and marketers. I coordinated shipping the first live clams to Tokyo.

Shellfish and Marine Algaes

I began growing oysters "non-commercially" in Eagle Harbor in 1973 near the Head-of-the-Bay and continue to do so. One of the Island's first four WSU "Master Gardeners" who grew much of our young families food for 20 years

I have scuba dove in Eagle Harbor at Wing Point as well as under and around the Winslow Ferry Dock. All my life I've harvested crab, not with traps but by wading, day and night, at low tide among the sea life and observed the ever-changing ecology. I was on the small select survey team with Paul Dorn and Suquamish Fisheries launch and City staff who used GPS to survey every creosoted pile and timber on east side of Island and in Eagle Harbor.

We have harvested nori, Laminaria (kombu) Nereocystis (bulb kelp) and other seaweeds for years for human consumption and garden soil enhancements. Every year or two we make kelp pickles from kelp at harvested at Wing Point. You might like to try some. Their label would make you smile.

Municipal government environmental oversights

I also had experience in municipal government, solid waste management, sewerage treatment upgrades, landfill creations and garbage dump land reclamations as an assistant to the Mayor and recording clerk for the City of Poulsbo for five years during their "Trident Growth Boom", 1975 to 1980. We shared the same City Engineering firm, with the City of Winslow and became good friends with chief engineer Herb Armstrong who was also working on secondary treat plant improvements and outfall location studies in Eagle Harbor for Winslow. These included current flow and circulation studies on a full range of tide extremes.

Historic Preservation

My participation with most recent EPA citizen group – and I've been on others – stems from my long time interest in Island and regional history.

It began the moment my wife and I moved here, renting three old homes and even a school, and meeting many Islanders and old-timers. I had 650 students per week among all four Island Schools. I worked my first summer at T & C, the Island's most popular market. I treasured time with old timers, some of whom had known my ancestors. I learned about theirs. I served as a trustee with the

County's historical society and the Island's; I embraced Friends of Suquamish Museum, BI Japanese American Community's Heritage Steering Committee, and became an honorary lifetime Filipino American. I wrote an environmental history of the Island told through water (*Streams of B. Is…"* (1996, Salmonberry Press). We formed "Friends of Kitsap Archaeology" and more recently "Friends of Geology" both for professionals and geology educators. We taught two college credited summer courses for teachers. I received three Governor/SHPO awards, a (rare) National Historic Preservation Award (DAR 2000) and became the Island Arts & Humanities Council's first recipient of their Island Treasure Award in Humanities all because of our interest in historic preservation in a community rich in history.

Creosote

And in the middle of all this, the last owners of the wood preservation industry with locations near the mouth of the Duwamish River and at Bill Point on Eagle Harbor decided to cease operations. I'd known some who worked there including a kind old fellow across the road from us whose small farm had creosoted fence posts as he had once been plant superintendent – Jacob Book. We all took advantage of free bark chips in home gardens and composted with aquiculture fish mortalities for commercial farms' compost additions to our glacial soils and poles for any community project that needed them. We joined volunteers using them to build the park districts first children's playground. And I once put on shirt and tie and visited their Island offices to explore job opportunities. I should have worn caulks and swapped the tie for a can of chewing tobacco.

When I saw that the young team who were put together to plan and execute the cleanup at Wyckoff were young and cared little about the history and were making some foolish mistakes because they had not taken the time to learn about the industry and its products and uses, and because there was interest in adaptive reuses for the industrial buildings and historic offices and residences, and or some significant artifacts for use in interpreting the Creosote community's history for future generations, we had to do something. When we heard that throughout the west whenever EPA cleans up a site whose engineering had not been surveyed and documented for historic

preservation purposes while Creosote's was not and had not been, we spent six-months intently interviewing all of the former employees we could find, gathering their oral histories and interviews as best we could, collected historic photos from many varied sources known and mostly heretofore unknown to tell the story. We gained access to company files and with help of site overseers of various employs, saved the only surviving Army Corps of Engineers Map for Eagle harbor that had been made in 1904. Neither Seattle Corps offices nor National Archives had it.

We accessed files with hundreds of recipes for the creosote mix for pilings designed specifically for different cities and environmental demands.

We found films of the plant operation of the sister plant in Seattle on the Duwamish. We found old company products records in our museum archives with photographs of each and many of their locations. And they were amazing and revealed, by EPA decisions being made, that they had not done their homework.

We created a doubled slide projector slide show to enable a sharing of three remarkable panoramas of the Creosote community that was, until 1936, completely waterborne and had its own post office.

We invited the Island to a sharing of that film and slide show that contained 250 images and made sure as many of the old timers as we could find attended. This were people who'd spent their lives in the town of Creosote and had lived in no small part from the clams on the beaches there, catching crab and shrimp from the beaches, swam in the surrounding waters, rushed to the retort openings whenever they had a sinus congestion in order to breath in the hot creosote smells that relieved their congestion, and yet despite all claims to the contrary thought by environmentalists to not be possible, their cancer rates where not above the population norms.

My time is running out for comment but I would like to say that these folks had not been idiots. Their leadership came from the top engineering graduates the UW produced. The detail with which they produced street pavers, railroad ties by the barge full was not rocket science so much as the piling precision. And these were nothing

compared to the unbelievable trestles and bridges that had to not just be made all drilled and everything to be taken to the construction sites to cross irregular ravines and vallies, curve at often irregular radii and gain or lose elevation as they crossed and each piece of these timber framed works had to be designed and loaded and shipped and unloaded precisely as they had to be assembled, each piece labeled and marked, pre-assembled before pressure treatment to make sure everything was coated and all would fit on site. I dare say that is every bit as challenging as a proposed plane dated April 2016 to continue the 29 years of “cleanup” at the site for what, another 16 years?

I am running out of time today.

My creative art teacher problem-solving offering would with time have been numerous questions that deserve to be asked and should have been heard, but were not. When the Wright brothers designed the airplane, they took opposite sides or viewpoints to design ideas every other day. These dates led to human winged flight.

I see or hear no such debates yet assume EPA staff must have them. I was pleased by your frank sharing this week on the phone. I was also pleased with my listening and not streaming on, as this writing must seem. I admire the challenges EPA must face on a daily basis. Humans have not faced challenges quite the same as these in history. Yet the former Creosote workers felt they were saving trees and forests, save labors with long term use of materials, finding uses for industrial byproducts – creosote – that would have been used how.

A double PhD chemist in our State disagrees with toxicity issues surrounding Creosote and is hired by Canada to over see that nation’s use of treated piling. We know for sure that vertical columns of marine communities ecosystems enhance the biodiversity. Barren sand undersea plains are comparative deserts to piling forests of algae, shellfish and all manner of flora and fauna and invertebrates.

Our Creosote History program that told the industry’s story should have been the first thing EPA and our citizen committee sat down to see and think about.

When the machine shop with its foot thick timber framing was declared that it had to go because its floor contained creosote, EPA workers had no knowledge of the recipe for the floor tiles that had the least amount of creosote on any of the company's products. More embarrassing was the fact that federal employees of the Bremerton naval Shipyard were working on that very same floor and still are today I believe because that is and was the best floor to protect machined materials from breakage in case it is dropped. Further, today at the Seattle Center House, the same creosote pavers that are the restored floor of the former Armory that formerly had occupied that very spot is the dance floor and main dining room thousands of visitors use every day! And at the time, REI's floor on Seattle's 11th Ave also used the same floor.

We hurried a video copy of our Historical Society's program, "Creosote Sunday" at which everyone was served homemade vanilla ice cream topped with creosote (chocolate sauce) and sawdust (peanuts) and the salute to the families who devoted their lives to – oh, and I forgot the enormous water transmission lines and wooden creosoted treated pipe that carried water from Seattle's mountain reservoirs, four-foot diameter ones still being used at the time of our program (!), and piers and docks and everything from the Panama Canal to the largest port in Asia

The plant manager's wife was a co-founder of Arts & Crafts, the organization who had lobbied to initiate a school art program. Their chief engineer was on the park board and not many years after my visit, oversaw the $2M bacteria creosote digestion tank and wells built by Wyckoff to extract the creosote contained in the subsoil. I have always felt that there is merit in biological cleanup remedies.

We sent our program video to DOI and NPS headquarters in San Francisco which brought a temporary halt to the cleanup while a trained cultural resource expert rushed to the site that was by then maybe 75% demolished and did an Historic American Engineering Report or Survey. The ca. 20-foot or so section from one of the eight 130+ foot seven-foot diameter retorts was the only artifact except maybe a wrench that had been used to tighten the retort's door, were among the few artifacts set aside for future interpretation. It weighed

17-ton and EPA generously coated it in epoxy or fiberglass resign and transported it to the museum in Strawberry hill Park to await cleanup and eventual transfer back to the site where it was used and should be for proper interpretation.

There was one exception. We did get one more thing. Finally, on the last day before the last major building was demolished, the machine shop, we were allowed to take a look in the shop's attic for anything historical. It had been off limits and frankly overlooked by EPA overseers despite our regular requests since we'd surveyed other buildings. . There we found along with other dusty and dirty rolled near century old documents were the original drawing for a creosote treatment plant at Bill Point. That should have been the first thing anyone did to have a close look at and understanding of the Creosote operations.

Personally noteworthy – Environmental impacts and family loss

My wife knows I have every reason to be passionate in these matters.

We have been married for 54 years, have two daughters, three grand children and we lost our son to leukemia, I believe, because of his exposures to methyl bromide while working a day job unloading heavily fumigated shipping containers on the Seattle waterfront.

OSHA did not include cancer as an occupational disease at the time. Two years later, NIOSH included benzene among leukemia causers. In time, WSDOH health officials and others noted leukemia clusters in our State (Lynden, WA) and a UW chemistry professor and many, including EPA, noted impacts of methyl bromides which, though outlawed worldwide, continued to be used as fumigants and are even promoted for soil sterilization in CA and here in recent years among berry growers (whose activities here since 1908 I have studied thoroughly).

NOTE: In 1993 when our son was diagnosed, an EPA official pointed out that the fumigated shipping container hazards could be eliminated by a modification to container designs to make them tighter so that 100% nitrogen could be used in them instead of the powerful toxic

fumigants; and that the technology to do so is already known here. It has been used by the apple industry for years that remove oxygen from their storage units to retard rotting and enabling long storage of their apple harvests.

QUESTION: What fumigants are used today by shippers?

PROPOSED ROD AMENDMENT:

I am down to 70 minutes to address this and get it in the mail. So much for spell check.

I have many questions – many.

I am not sure after all these 29 years of looking at this problem and even seeing the depth of inquiry and dedication by our EPA, Ecology and USAC teams and associated contractors and sub-contractors, a few of whom I served as consultant or whose frustrations I heard after they walked away from this cleanup challenge.

I am glad that finally the Wyckoff site in Seattle on the Duwamish is getting the attention it deserves. It is in a dense urban area. It has actual salmon runs. It should have had EPA's attention from the beginning.

You will never be able to clean up the Harbor bottom.

Eagle Harbor is not a deep-water harbor. And it runs E-W because it is on the northern edge of the Blakely Harbor Formation, AKA the Seattle Fault. I am very familiar with this and have not heard any USGS reports on its impacts, especially on the current proposed amendment that involves cement, etc.

The depth of the harbor maximum 50 feet in one small mid harbor spot. Mostly it is in 30-foot range or so. One State Ferry used to have a 15-foot propeller – 15-feet! While ferry and boat speeds have been reduced – a good thing because of the complex drift cells and shoreline hydrology and high energy along Rockaway Beach, The ferries glide across this shallow bay until they reach the ferry dock. And as all ferry docks, their length defines the shallowest place where

all ferries go. Further, while they relatively glide until they get to this shallowest spot, once they arrive, the sit there for 20 minutes or so, each hour churning the bottom as their engines are often necessary because of current wind and such to power them against the dock as cars unload. And all that time they are digging a hole. Since we first capped the harbor bottom in response to Dr. Rah's (spelling?) report of effect of AH's on flounder liver lesions, the bathymetric maps of the harbor were changing every month or so.

The depth off of the dock is less than 35 feet. The tide range is 15 feet. The ferry prop diameters place the source of the prop wash very low especially at low tide, but even normally. Even with heavy rocks, I'd be surprised if a cover can prevent the erosion of bottom capping.

The beach at Creosote today appears healthy with small amounts of random seepage. And it looks much the same as it did 29 years ago in intertidal zone. I have boated in the harbor for longer than I have grown shellfish – all in small boats, dories, a canoe, a 17-foot centerboard sloop. I've waded portions of the bay at extreme low tides, frequently when crabbing and working on various projects.

When we were working on establishing a park near the head-of-the-bay we had new varnish clams growing in beach sand and gravel, they came back OK to eat. Similar tests by other groups growing oysters from bags suspended from docks also came back clean. And when reporting it to a WSDOH shellfish specialist he reported similar results fro shellfish samples at Wing and Bill Points and Port Blakely.

What was the source of the Creosote in OU3? Where exactly was it located? How deep? On which side of the ravine swale from Bill Point Hill?

How deep is the City well on Taylor Ave.? That is close to OU3.

How deep is that well? How often is it tested?

How does it compare to EPA/DOE's newer well in Upper Beach area behind fence?

I have no more time but want to thank you for your time and dedication.

I wonder now more than when the cleanup began whether we will actually be able to do better than what Nature would do his or herself.

One remedy put forth, and it may be the ROD we are still using, indicated that the creosote still left in the ground was the equivalent volume as a football field plus end zones three feet deep in creosote. Is place within 50 gallon drums, at the rate of extraction that the process being used was doing, it was going to take over 400 years – I recall 410! Does anyone know what bacteria would do naturally in that time? Does anyone know what the sea level will be in that time? Does anyone know if the United States or EPA will still be around in that time?

Bring your folks over here sometime and let's explore the questions?

I hope the Oregon desert is being cleaned up where we hauled the gad-jillion cubic yards of creosote laden soils from the main contaminated area.

I am vey apprehensive about the concrete slurry suggested remedy as it likely precludes other possible remedies such as may present themselves in today's rapidly changing world? Will a bacterial remedy be possible in a cracked or uncracked cement blob?

If you still want to visit the site on minus 2.9 July 4, I'd forsake other activities.

If you or your staff ever wants to view the slide show you have two choices:
See DVD # 55 at Island Historical Museum, or give me a call.

If this site can be cleaned up, will it be worth the expense to tax holders?

What is the cost to date? $150M? More? Less?

Just time for a short spell check, apologize for ramblings, and to hit e-mail send button.

Cheers and gratitude!

(b) (6)